

## **Remarks**

### *I. Status of Claims*

Claims 21, 25-27, 29, 31-34, 36, and 38-41 have been canceled without prejudice or disclaimer to the filing of a divisional application directed to the subject matter recited therein. Claims 1-20, 22-24, 28, 30, 35 and 37 remain in this application, and are presented for reconsideration.

### *II. Election and Response to Restriction Requirement*

Applicants hereby formally elect to prosecute claims 1-20, 22-25, 28, 30-31, 35, 37 and 38, without traverse. Claims 21, 26, 27, 29, 32-34, 36 and 39-41 are directed to the non-elected invention(s), and have been canceled without prejudice or disclaimer to the filing of a divisional application directed to the subject matter recited therein.

### *III. The Claims Comply With 35 U.S.C. § 112*

Claims 1-20, 22-25, 28, 30, 31, 35, 37 and 38 have been rejected under 35 U.S.C. § 112, second paragraph, because these claims allegedly are “indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.” Office Action at 3. No further detail is provided regarding the basis for this rejection. Thus, the Examiner’s rejection is simply a restatement of the statutory requirements for the second paragraph of 35 U.S.C. § 112, and does not provide sufficient notice as to the basis for the rejection to permit applicants to respond. As such, this rejection fails to comply with MPEP § 2173.02 which states, in pertinent part:

If upon review of a claim in its entirety, the Examiner concludes that a rejection under 35 U.S.C. § 112, second paragraph, is appropriate, such a

rejection should be made *and an analysis as to why the phrase(s) used in the claim is 'vague and indefinite' should be included in the Office action.*

MPEP § 2173.02, emphasis added.

Applicants respectfully assert that the rejection of claims under 35 U.S.C. § 112, second paragraph, lacks basis sufficient to place Applicants on notice of the rejection, and is therefore contrary to the requirements of the MPEP. The rejection should be withdrawn for this reason alone.

In addition, Applicants respectfully assert that the claims pending in this application comply with the requirements of 35 U.S.C. §112, second paragraph. It is noted that all that is required of claim language is that it defines the patentable subject matter with a reasonable degree of particularity and definiteness. *See*, MPEP § 2173.02. In addition, a claim may not be rejected under § 112, second paragraph, solely because of the type of language used to define the subject matter for which patent protection is sought. *In re Swinehart*, 439 F.2d 210 (CCPA 1971).

In light of the foregoing points of discussion, Applicants respectfully request the withdrawal of the rejection of claims under 35 U.S.C. § 112, second paragraph.

#### *IV. The Claims Are Patentable Over The Prior Art*

##### *A. Summary of the Invention*

The invention is directed generally to the improvement of parameter passing between computer programs. In one aspect of the present invention, parameter passing is improved between first, second, and third program portions using a first and second set of arrays, with the second set of arrays being constructed as an image of the first set of arrays. Specification, p. 4, lns. 11-21, claims 1 and 16. In one particular application of

the invention, the first program portion may be an application program for electronic design automation, the second program portion may be a shared object library or a dynamic link library, and the third program portion may comprise a set of non-application specific utilities. Specification, p. 7, ln. 23 through p. 8. ln. 5.

Handling parameter passing between the first, second, and third program portions using the first set and second sets of arrays, with the second set of arrays being created in an image of the first set of arrays, permits rapid parameter passing between and among the first, second and third program portions. This feature has a particular advantage in electronic design automation and simulation which uses repeated calls to a library of device models. *See*, claims 11, 24, 30 and 37. In another aspect of the invention, a rule may be evaluated by determining the data required to evaluate the rule, and the use of a parameter block interface having one or more fields for passing data to the rule which are filled dynamically responsive to the one or more requirements. *See, e.g.*, Specification, p. 19, lns. 26-28, claim 20. Once again, this aspect of the invention has particular applicability in the field of electronic design automation and simulation.

As presented below, none of these aspects of the present invention is disclosed or suggested by the applied prior art.

*B. Claims 1-10, 12-18, 20, 22, 23, 28 and 35 are patentable over Iyer et al.*

Claims 1-10, 12-18, 20, 22, 23, 28 and 35 stand rejected under 35 U.S.C. § 102 as being allegedly anticipated by Iyer *et al.*, U.S. Patent No. 6,481,007.<sup>1</sup> Applicants respectfully traverse this rejection.

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<sup>1</sup> It is noted that the subject Office Action refers to this reference as the "Lyer" reference.

The Iyer *et al.* reference addresses parameter passing, and specifically the problem of alias detection when passing parameters. In particular, Iyer *et al.* determine whether a parameter is aliased and, if so, it uses a “call by value” procedure where the actual parameter and the corresponding formal parameter are stored in separate storage locations. If the parameter is not alias, then a so-called “call by reference” procedure is used wherein the same storage location is used for both the actual and formal parameters. Col. 1, lns. 41-43; col. 2, lns. 7-8; and col. 3, lns. 20-28.

In contrast, the presently claimed invention passes parameters by using first and second sets of arrays with the second set of arrays being an image of the first set of arrays, as is expressly required by independent claims 1 and 16. In addition, independent claim 16 requires assessment of the first, second and third program portions and the population of the first plurality of arrays in response to transactions performed between the first and second program portions, and population of the second plurality of arrays with output received from the third program portion. Iyer *et al.* is completely missing this structure and function of this structure.

Further, independent claim 20 recites a parameter block which is used to pass data to a rule with one or more fields in the parameter block being dynamically filled responsive to one or more requirements of the rule. This function is completely absent from Iyer *et al.* In addition, it is noted that while in paragraph 6 of the subject Office Action, it is stated the claim 20 stands rejected over Iyer *et al.*, there is no basis for that rejection stated anywhere in paragraphs 7-26. As such, Applicants are without notice as to the basis for this prior art rejection, and the rejection thus does not comply with MPEP § 2131.

Claims 1, 16 and 20 are the only independent claims in the group of claims that stand rejected based on Iyer *et al.* In light of the foregoing comments and points of discussion, Applicants respectfully request the withdrawal of the rejection of these independent claims, and each of the claims dependent therefrom.

Further, with respect to claims 6 and 9, the Examiner states that the functions stated in those claims are “an inherent property” of the Iyer *et al.* reference. Office Action at ¶¶ 16 and 19. However, this statement is completely without basis. Inherency cannot be established by possibilities or probabilities, but rather must necessarily flow from the teachings of a reference.

While a reference need not expressly set forth a particular element of a claim in order to qualify as a prior art, the Patent Office must establish, in the first instance, that the element is inherently present in the prior art. This is true of functional limitations appearing in otherwise structural claims. *In re Swinehart*, 49 F.2d 210, 212 (C.C.P.A. 1971). However, inherency “may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A., 1981). Thus, that a prior art reference may be capable of performing a recited function, is simply not relevant unless the prior art reference expressly or inherently performs that function. The Patent Office must establish that the reference performs the recited function, either expressly or inherently, in order to establish a *prima facie* case of obviousness.

Here, there is no disclosure or suggestion in the Iyer et al. reference, either expressly or inherently, of the electronic design automation function of claim 6, or of the active model function of claim 9.

For these reasons, applicants respectfully request the withdrawal of the rejection of claims 1-10, 12-18, 20, 22, 23, 28 and 35.

*C. Claims 20 and 35 are patentable over Sriram et al.*

Claims 20 and 35 stand rejection under § 102 as being allegedly anticipated by Sriram et al., U.S. Patent No. 6,539,059. Applicants respectfully traverse this rejection.

Sriram et al. disclose a method and apparatus for digital video recording. In support of the Examiner's contention that Sriram et al. disclose the dynamic filling of a parameter block interface in response to one or more requirements of a queried rule, the Examiner makes reference to "col. 46, lns. 46-51." Office Action at ¶ 28. In fact, Sriram et al. has no column 46. In an effort to understand the Examiner's rejection, the Applicants have carefully reviewed the Sriram et al. reference and can find no reference to dynamic parameter block filling, responsive to the requirements of a rule being evaluated as required by claim independent claim 20 and by dependent claim 35.

In light of the foregoing comments, Applicants respectfully request the withdrawal of the rejection of claims 20 and 35 over the Sriram et al. reference.

*D. Claims 25, 31 and 38 are patentable over Tamaki*

The Examiner rejects claims 25, 31 and 38 as being allegedly anticipated by Tamaki, published U.S. patent application No. 2001/0015464 A1. These claims have been canceled.

*E. Claim 11 is patentable over Iyer al. in view of Kawas et al.*

The Examiner has rejected claim 11 under 35 U.S.C. § 103 as being unpatentable over Iyer *et al.* in view of Kawas *et al.*, published U.S. patent application No. 2001/0034591 A1. Applicants respectfully traverse this rejection.

Kawas *et al.* deals with a computer aided design (CAD) method and apparatus for communications networks. However, Kawas *et al.* does not disclose or suggest parameter passing by using first and second sets of arrays with the second set of arrays being an image of the first set of arrays, as is expressly required by independent claims 1 and 16. In addition, independent claim 16 requires assessment of the first, second and third program portions and the population of the first plurality of arrays in response to transactions performed between the first and second program portions, and population of the second plurality of arrays with output received from the third program portion. As emphasized above in connection with the distinguishing remarks regarding Iyer *et al.*, the structure and function of this structure is found only in the presently claimed invention.

In light of these comments, Applicants respectfully request the withdrawal of the rejection of claim 11 ..

*F. Claim 19 is patentable over Iyer et al. in view of Vasudevan et al.*

Claim 19 stands rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Iyer *et al.* in view of Vasudevan *et al.*, U.S. Patent No. 6,446,137. Applicants respectfully traverse this rejection.

Vasudevan *et al.* deal with a remote procedure call system including the dynamic sizing of arrays. However, Vasudevan *et al.* do not disclose or suggest the provision of a first plurality of arrays including a first data structure, a second plurality of arrays including a second data structure, with the second data structure being a mapped image of

the first data structure. Nor is there any disclosure or suggestion in Vasudevan *et al.* of using these first and second data structures included in the first and second data arrays to coordinate parameter passing between first, second, and third program portions, as required by independent claim 16 (the claim from which claim 19 depends). As such, Vasudevan *et al.* completely fails to supply the above-noted discrepancies existing in the Iyer *et al.* reference.

In light of these comments, Applicants respectfully request the withdrawal of the rejection of claim 19.

G. *Claims 24 and 30 are patentable over Iyer et al. in view of Khou et al.*

Claims 24 and 30 have been rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Iyer *et al.* in view of Khou *et al.*, U.S. Patent No. 6,408,423. Applicants respectfully traverse this rejection.

The Khou *et al.* reference discloses a method for verification of a design for an integrated circuit. However, Khou *et al.* fails to disclose parameter passing by using first and second sets of arrays with the second set of arrays being an image of the first set of arrays, as is expressly required by independent claims 1 and 16 (the independent claims from which claims 24 and 30 depend). In addition, independent claim 16 requires assessment of the first, second and third program portions and the population of the first plurality of arrays in response to transactions performed between the first and second program portions, and population of the second plurality of arrays with output received from the third program portion. As emphasized above in connection with the distinguishing remarks regarding Iyer *et al.*, the structure and function of this structure is found only in the presently claimed invention.



In light of the foregoing comments, Applicants respectfully request the withdrawal of the rejection of claims 24 and 30.

*H. Claim 37 is patentable over Sriram et al. in view of Khou et al.*

Claim 37 stands rejected under 35 U.S.C. § 103 as being unpatentable over Sriram *et al.* in view of Khou *et al.* Applicants respectfully traverse this rejection.

Claim 37 depends from independent claim 20, and the Khou *et al.* reference does not provide any of the missing material emphasized above with reference to the distinctions between claim 20 and the Sriram *et al.* reference. Specifically, Khou *et al.* do not provide the dynamic filling of a parameter block interface in response to one or more requirements of a queried rule. These features and functions are found only in the presently claimed invention.

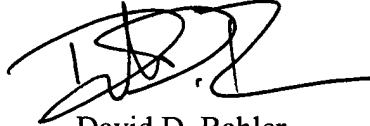
In light of the foregoing, Applicants respectfully request the withdrawal of the rejection of claim 37.

*V. Conclusion*

For the reasons presented above, Applicants respectfully request the withdrawal of the rejection of claims 1-20, 22-24, 28, 30, 35 and 37, and the issuance of a timely Notice of Allowance for these claims.

Should the Examiner believe that personal discussion would be helpful, he is encouraged to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Bahler', with a stylized flourish extending to the right.

David D. Bahler  
Reg. No. 30,932  
Attorney for Applicants

FULBRIGHT & JAWORSKI L.L.P.  
600 Congress Avenue, Suite 2400  
Austin, Texas 78701  
Telephone: 512-536-3005  
Facsimile: 512-536-4598

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